

Table 1. Effect of GnRH treatment, parity, body condition score (BCS), days in milk (DIM), milk production and dominant follicle (DF) diameter on LH peak and ovulation of lactating dairy cows on Day 7 of the estrous cycle¹

Item	n	LH peak, ng/mL	<i>P</i> -value ²	Ovulation, % (n/n)	<i>P</i> -value ²
GnRH					
Profertil	18	1.2 ± 0.2	0.41	69.8 (37/53)	0.16
Fertagyl	15	1.0 ± 0.2		66.0 (35/53)	
Parity					
Primiparous	14	1.1 ± 0.2	0.85	80.5 (33/41)	0.04
Multiparous	19	1.1 ± 0.2		60.0 (39/65)	
BCS					
≤ 3.0	19	1.4 ± 0.2	< 0.01	70.5 (43/61)	0.56
> 3.0	14	0.7 ± 0.1		64.4 (29/45)	
DIM					
≤ 75	15	1.3 ± 0.2	0.41	68.5 (37/54)	0.93
> 75	18	1.0 ± 0.1		67.3 (35/52)	
Milk Production					
≤ 39.0 kg/d	17	1.1 ± 0.2	0.64	67.3 (35/52)	0.96
> 39.0 kg/d	14	1.2 ± 0.2		68.6 (35/51)	
Diameter of DF					
≤ 12.0 mm	17	1.3 ± 0.2	0.05	70.0 (35/50)	0.68
> 12.0 mm	16	0.9 ± 0.1		66.1 (37/56)	

¹7 d after a confirmed ovulation, lactating Holstein cows were treated with 100 µg GnRH ready-to-use solution (Fertagyl; MSD, São Paulo, Brazil) or lyophilized (Profertil; J.A. Animal Health, Patrocínio Paulista, Brazil) diluted just before its administration. Mean progesterone concentration at the time of GnRH treatment (2.1 ± 0.1 ng/mL) was not affected by any factor evaluated, except for a tendency between multiparous and primiparous (2.3 ± 0.2 vs. 1.9 ± 0.2 ng/mL; *P* = 0.08).

²Treatment effect and its interaction were included in the analyses of all other factors.

Table 2. Effect of GnRH treatment on LH peak and ovulation according to the parity of lactating dairy cows on Day 7 of the estrous cycle¹

Item	Primiparous		Multiparous		<i>P</i> -value ²		
	Profertil	Fertagyl	Profertil	Fertagyl	GnRH	Parity	GnRH*Parity
LH peak, ng/mL (n)	1.4 ± 0.4 (8)	0.8 ± 0.1 (6)	1.1 ± 0.2 (10)	1.2 ± 0.3 (9)	0.41	0.85	0.30
Ovulation, % (n/n)	95.2 ^a (20/21)	65.0 ^b (13/20)	53.1 (17/32)	66.7 (22/33)	0.16	0.04	0.02

¹7 d after a confirmed ovulation, primiparous and multiparous lactating Holstein cows were treated with 100 µg GnRH ready-to-use solution (Fertagyl; MSD, São Paulo, Brazil) or lyophilized (Profertil; J.A. Animal Health, Patrocínio Paulista, Brazil) diluted just before its administration. Mean progesterone concentration at the time of GnRH treatment was 1.9 ± 0.2 ng/mL in primiparous and 2.3 ± 0.2 ng/mL in multiparous cows.

²Interaction (GnRH*Parity) effect was sliced. ^{a-b}Effect of GnRH treatment within primiparous cows (*P* = 0.04).